Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
The Development of Operational Technical	)	WT Docket No. 96-86
Spectrum Requirements for Meeting Federal,	)	
State and Local Public Safety Requirements	)	
Through the Year 2010	)	

COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS

To: The Commission

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October 21, 1996

Summary

The Association of American Railroads ("AAR") commends the Public Safety Wireless Advisory Committee ("PSWAC") for the result of its efforts to address the complex and difficult task of recommending sufficient spectrum allocations for public safety agencies -- the PSWAC Final Report. AAR was an active participant in the work of the PSWAC and is generally satisfied with the Final Report. There are, however, several portions of the Final Report with which AAR disagrees. Specifically, AAR urges the Commission not to allocate automatically all new channels created as a result of refarming to public safety users. Any new channels created as a result of splitting channels that currently are allocated to the Railroad Radio Service should be reserved for use by the nation's railroads. In addition, AAR urges the Commission to recognize the unique requirements and characteristics of the railroads' public safety use of spectrum by maintaining the Railroad Radio Service frequencies as a separate service group. Radio is vital to the safe operation of the nation's railroads. The U.S. railroad industry deploys and depends on a sophisticated and comprehensive interrelated radio communications network consisting of both mobile and fixed point-to-point communications systems and facilities. This widespread dependence on wireless technology dictates that the Commission ensure that railroads continue to have access to interference-free spectrum in sufficient quantity to meet the industry's critical safety-related needs.

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The Association of American Railroads ("AAR") by its undersigned counsel and pursuant to Section 1.415 of the Rules of the Federal Communications Commission, 47 C.F.R. § 1.415, respectfully submits these Comments in response to the Notice of Proposed Rule Making ("Notice") in the above-referenced proceeding.[1] AAR offers these Comments[2] pursuant to the Commission's decision to use this proceeding as a vehicle to receive the Public Safety Wireless Advisory Committee ("PSWAC") final report[3] on

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[1] Notice of Proposed Rulemaking, FCC 96-155 (April 10, 1996) ("Notice").

[2] The Commission extended the deadline for the submission of comments in this proceeding to October 21, 1996, Order, DA 96-1492, WT Docket No. 96-86 (Released September 6, 1996). By Public Notice on October 9, 1996, the Commission requested comment on the applicability of 47 U.S.C. § 273 (d)(4) regarding the development of equipment standards for public safety wireless communications equipment. Public Notice, FCC 96-403, (Released October 9, 1996).

[3] Final Report of the Public Safety Wireless Committee to the Federal Communications Commission, Reed E. Hundt, Chairman and the National Telecommunications and Information Agency, Larry Irving, Assistant Secretary of Commerce for Communications and Information, September 11, 1996 ("Final Report" or "PSWAC Final Report").

public safety wireless communications.[4] Therefore, these Comments are directed primarily to the sections of the PSWAC Final Report discussed herein, except where otherwise noted.

I. INTRODUCTION

AAR was an active participant in the work of the PSWAC, owing to the fundamental safety-related nature of railroad radio communications and the critical need for railroad operating and security personnel to communicate effectively with public safety entities during emergencies and other times. The railroads' operational and safety wireless communications systems are faced with many of the same problems as public safety wireless communications systems described in the Notice. Chief among these problems for the railroads is the scarcity of available spectrum and the congestion of the radio frequencies allocated for the railroads' use in urban areas. AAR member railroads must have access to clear spectrum in order to prevent and respond to disasters similar to the one described in the Executive Summary of the Final Report.

Generally, AAR is satisfied with the Final Report. The PSWAC has done a commendable job of addressing this complex and difficult issue. There are, however, several portions of the Final Report with which AAR disagrees. Specifically, AAR urges the Commission not to allocate automatically all new channels created as a result of refarming to public safety users. While AAR does not dispute the need for additional spectrum by public safety agencies, such additional spectrum must not come at the expense of the nation's railroads, who themselves are facing a shortage of spectrum for

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[4] Notice at ¶ 19.

their critical operational, safety, and law enforcement uses. In addition, AAR urges the Commission to recognize the unique requirements and characteristics of the railroads' public safety use of spectrum by maintaining the Railroad Radio Service frequencies as a separate service group. Therefore, AAR submits these Comments[5] to the Commission as it considers the conclusions and recommendations of the PSWAC Final Report.

II. THE RAILROADS' COMMUNICATIONS SYSTEMS PLAY A VITAL PUBLIC SAFETY ROLE.

A. Radio Systems are vital to the Safe Operation of the Nation's Railroads

In the Notice, the Commission recognized the fundamental public safety nature of railroad wireless communications.[6] The ubiquitous use of radio is vital to the safe operation of the nation's railroads. The U.S. railroad industry deploys and depends on a sophisticated and comprehensive interrelated radio communications network consisting of both mobile and fixed point-to-point communications systems and facilities. The railroads use private fixed microwave systems that operate on frequencies in the 2 GHz band to meet safety and reliability requirements in their day-to-day operations. Private microwave facilities are used to monitor and control more than 1.2 million train cars on more than 215,000 miles of track. For example, microwave systems carry information regarding train signals and the remote switching of tracks and routing of trains that are

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[5] AAR made many of the same points contained in these Comments in a memorandum to the drafters of the Final Report on August 16, 1996 in response to a request for public comment on a Draft Final Report from Philip L. Verveer, PSWAC Chairman. A review of the Final Report reveals, however, that AAR's concerns were not addressed by the PSWAC.

[6] Notice, ¶ 25; See Section IV, infra, p. 12.

necessary for the safe operation of trains on rights-of-way and through depots and freight yards. These systems also relay critical telemetry data from trackside defect detectors located throughout the rail network. Information about damaged rails, overheated wheel bearings, dragging equipment, rock slides and the like is automatically transmitted from these detectors via mobile radio links to engineers in trains, who can then take the necessary actions to prevent derailments, and via fixed microwave links to dispatchers in distant locations, who are required to know the status of the equipment along the routes for which they are responsible. Microwave systems also are vital to coordination of operations between and among the different railroads.

The railroads also operate Private Land Mobile Radio ("PLMR") facilities on 91 channels around 160 MHz and on six channels in the 450-470 MHz range. On locomotives and rail equipment, along railroad tracks and in stations, terminals and train yards across the nation, railroads currently utilize about 16,400 base stations, 40,000 mobile radios, 125,000 portable radios, 5,500 defect detectors, and 56,000 end-of-train, head-of-train devices and locomotive mobiles.

The railroads are able to operate smoothly and to ensure public safety only by employing these nationwide, interoperable wireless communications systems. Radio communications between trains and work crews on the railroad rights-of-way are essential to protect railroad employees and the general public. Only radio can provide immediate information on the location, direction and speed of movement of hundreds of trains operating at the same time on each major railroad in the country. This information is indispensable to railroad safety.

The importance of radio spectrum for operational safety in the railroad industry has been well-documented by the Federal Railroad Administration ("FRA"). In its 1994 Report to Congress, the FRA highlighted nine characteristics which cause the railroads to place a premium on effective and secure communications:[7]

1. The size and weight of rail equipment makes train operations an extremely powerful and potentially destructive force.

2. This potential is magnified by the long stopping distances inherent in operation of heavy rolling stock using steel wheels on steel rail.

3. Operations are conducted over an extensive network of rail lines spanning lightly developed rural and wilderness areas as well as highly developed urban and suburban areas.

4. Railroads must contend with over 280,000 highway crossings at grade and countless other locations where pedestrians and vehicles may come into conflict with train movements.

5. The railroads face challenges presented by natural disasters and often rapidly changing weather conditions.

6. Consistent with productivity and safety objectives, the number of railroad employees has been reduced, including a major reduction in the number of railroad supervisors providing direct supervision.

7. Train speeds have risen in response to service requirements, particularly for highly competitive service.

8. Density of track occupancy has risen due to downsizing of plant and unexpectedly strong demand for rail service.

9. Elements of prior communications systems, such as pole lines, have outlived their useful lives and required replacement by alternatives that are less costly to maintain.

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[7] Railroad Communications and Train Control, Federal Railroad Administration, Department of Transportation Report to Congress, July 1994 at 1-2 ("FRA Report").

The FRA Report reviewed in detail the various types of railroad communications systems, including those used for train movement and control, switching operations, defect detection and emergency response, and concluded that radio communications were an integral part of railroad safety planning and execution:

> Just as radio communications can be employed to save life after a train accident or incident, radio can be used to prevent serious accidents. Where automatic means of warning are not feasible or not provided (e.g., for broken rails, dangerously high water, fallen trees, derailed equipment fouling an adjacent main track, bridge damage from barge operations, etc.) radio communications may provide the last opportunity for accident avoidance....FRA is aware of numerous occurrences where use of voice radio has permitted accident avoidance or has significantly mitigated the severity of an accident.[8]

For example, telemetry systems for remote control and defect detection utilize PLMR frequencies to perform critical safety functions. Hot journal detectors measure the temperature of the axle bearings of a railroad car as it passes over the detector. A radio transmission then alerts the train crew to stop the train and inspect the journal to determine whether to remove the car in question or proceed at reduced speed. Similarly, hot wheel detectors identify railroad cars with malfunctioning brakes, which could lead to fires or other unsafe conditions; high-wide detectors are used to detect shifted cargo on a passing train and give warning prior to entry into tunnels; dragging equipment detectors are used to ascertain the presence and location of loose equipment on the undercarriage of train cars which can become jammed in tracks and cause derailments if not detected. As trains pass these detection devices, the readings from the detectors are transmitted by mobile radio to the crew members in the locomotive of the passing train and by

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[8] Id. at 22-34.

telemetry links to the distant microwave transmitter which relays this information to the dispatcher at headquarters. In the event defects are detected, train crew personnel are required to stop the train, inspect it and take remedial action prior to resuming the journey. These devices are a key component of the railroad industry's program for preventing derailments and other types of accidents.

In addition, end-of-train devices provide a remote radio telemetry link between the end of the train and the crew members in the locomotive. By means of this radio link, the train crew is able to assess the state of important conditions existing at the end of the train, which are determined by sensors that detect brake pressure, motion, direction and other conditions.

Mobile radio links are also used for the remote control of "slave" locomotives --additional locomotives placed in the middle of a train without crew members. Because the use of slave locomotives distributes motive power throughout a train rather than locating it at a single forward point, the railroads are able to move longer trains more safely than would otherwise be possible.

Extensive documentation exists concerning the use of railroad radio communications to avert accidents and coordinate rescue efforts. For example, a railroad channel was the means of first seeking emergency assistance upon the occurrence of a tragic derailment in 1993 involving a maritime vessel which caused the death of 47 passengers and crew aboard an Amtrak train traveling from Los Angeles to Miami.[9]

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[9] See Report of National Transportation Safety Board ("NTSB"), PB 94-916301, NTSB/RAR-94/01, adopted September 19, 1994, Notation 6167B, at 1, 8. The (continued...)

Attachment A presents an illustrative but by no means exhaustive sampling of anecdotal information on the safety applications of railroad radio systems.

B. Railroads Rely on Radio Systems for Law Enforcement

In addition to their crucial role in ensuring the safety of train movements and related operations, radio communications networks are used extensively to support another safety-related aspect of the railroad business: law enforcement. The railroad industry employs approximately 2,000 police officers nationwide, who, under federal law (49 U.S.C. § 26101), are authorized to enforce the laws of any jurisdiction in which a railroad owns property for the purpose of protecting the property of the railroads and their customers and the lives of employees, passengers or patrons of rail carriers. On railroad property, railroad police have arrest authority identical to that of state and local police, and often are called upon to coordinate their work with local law enforcement officials. Radio communications systems (operating on channels assigned by the FCC to the Railroad Radio Service) are used by railroad police departments in exactly the same manner as systems operated by state and local police departments, i.e., for surveillance, dispatching, undercover operations, tactical support, investigations, pursuits, and the like. On countless occasions the ability of railroad police to communicate via radio has proved instrumental in saving lives and averting accidents. For example, in July 1995 a Conrail

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[9](...continued)
NTSB found that the passenger train derailment in a bayou near Mobile, Alabama, was caused by the dislocation of a railroad bridge that was struck by a maritime vessel (a barge under tow) in heavy fog, resulting, in part, from the lack of radar navigation competency on the part of the maritime personnel operating the towing vessel. Id. at 59, 61.

police officer while on duty observed a trailer hanging over the side of a flatcar on a passing train. The officer was able to contact the train engineer by radio in time to have the train stopped before reaching a tunnel. But for the ability to communicate this information quickly by radio, the trailer would have struck the wall of the tunnel upon entry causing a major derailment. That same month Conrail police responded to a report of juveniles in the water struggling against a strong current. The officers were able to coordinate a successful rescue effort via radio and the two youngsters were saved. These are just two of the many instances where radio has proved to be of critical importance in the duties of railroad police.

III. THE AMOUNT OF SPECTRUM CURRENTLY ALLOCATED TO THE RAILROAD RADIO SERVICE MUST BE MAINTAINED

As noted, the railroad industry, like the public safety community, is facing severe channel congestion in all of its major operating centers and has a dire need itself for additional channel capacity. As AAR described in the Commission's refarming proceeding, the operational nature of railroads dictates that they must have instant access to effective and secure communications.[10] Without access to adequate spectrum, the railroads cannot operate their wireless communications systems with the degree of reliability necessary to protect railroad employees and the public. Despite this demonstrated need to maintain adequate spectrum for the railroads, however, the

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[10] Comments of AAR to Further Notice of Proposed Rulemaking in PR Docket No. 92-235 (Nov. 20, 1995) at 6-12.

PSWAC Final Report makes no distinction between the communications needs of the railroad industry and other private user groups.

First, the Final Report states that the FCC "should consider the reallocation of channels which may become available from private radio services as a result of the refarming mandates."[11] Second, the PSWAC Final Report recommends more specifically that public safety agencies be assigned any new or additional channels created in the 148-174 and 450-470 MHz bands as a result of refarming.[12] Finally, the Final Report contains a recommendation of the Spectrum Requirements Subcommittee which calls for "immediate allocation of the VHF and UHF channels in other services created by the FCC's refarming proceeding (including TV sharing bands)."[13] AAR objects to these recommendations and submits that any new channels created as a result of splitting channels currently allocated to the Railroad Radio Service should be made available to the railroad industry to meet its own critical needs for spectrum, and not reallocated to police, fire and emergency services. Due to the present channel congestion in its urban operating centers, the railroad industry cannot afford to give up any of the channels it is currently allotted. There may be some private radio user groups for which channel congestion is not a significant problem and for which this recommendation is acceptable, but the Railroad Radio Service is not one of these services. It appears from the Final

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[11] A similar recommendation is in the Final Report of the Spectrum Requirement Subcommittee at Paragraph 10.2.2, which states that "new allocations to public safety can be made in the [VHF] band by assigning the new channels from other services created by the FCC refarming proceeding."

[12] PSWAC Final Report at 60-61, Table 4-4-2.

[13] PSWAC Final Report, ¶ 4.4.16.

Report (and the report of the Spectrum Requirements Subcommittee), that PSWAC is recommending that all new channels made available as a result of refarming be assigned to public safety users. Any new channels created as a result of splitting channels currently allocated to the Railroad Radio Service should be reserved for use by the nation's railroads.

AAR also notes that the Spectrum Requirement Subcommittee Final Report states that "With the installation of new PCS and ESMR systems, there are viable alternatives for the non-public safety users to migrate to PCS and/or ESMR systems to accommodate growth requirements."[14] That statement apparently is to justify the proposed reallocation of new channels from other user groups to public safety. Whatever its applicability to other user groups, however, this statement is not applicable to the railroads. For purposes of mobile radio communications used for train control, train operations and railroad safety, the railroad system is a single, nationwide operation in which a radio-equipped locomotive owned by one railroad often will travel from coast-to-coast and from north-to-south, operating on tracks owned and controlled by other railroads. Importantly, this equipment travels through congested urban areas as well as through the most remote mountain and desert regions of the country -- regions where there is not now, nor likely ever will be, any cellular, PCS, ESMR or any other type of commercial mobile radio service. Because of this need for nationwide interoperability of its mobile radio equipment, the railroad industry is unique among all other radio users whose vehicular

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[14] Final Report of the Spectrum Requirements Subcommittee, Presented to PSWAC September 11, 1996, ¶ 10.2.4.2.

communications requirements are localized or regional in nature. In addition, commercial communications providers cannot provide railroads with guaranteed clear channels and instant access to communications in times of emergency or disaster. During these times, railroads must be able to rely on communications networks they control themselves in order to respond to disasters and to save lives. Accordingly, although the PCS or ESMR systems may be suitable substitutes for other users, they are not adequate substitutes for railroad radio systems used for train operations and AAR urges the Commission not to consider the Subcommittee's statement as it relates to railroads.

IV. RAILROAD RADIO SERVICES SHOULD BE MAINTAINED AS A SEPARATE SERVICE GROUP

In the Notice, the Commission states that it is proposing to adopt PSWAC's definitions of "public safety services" "in an effort to encompass the broadest array of the responsibilities and functions performed by public safety agencies."[15] The Commission recognized the fundamental public safety nature of many of the communications services performed by the railroads and other industries:

> [W]e note that the very nature of services such as utility, pipeline, petroleum and railroad often involve potential hazards where reliable radio communications is an essential tool in either avoiding the occurrence of such hazards or responding to emergency circumstances. Entities providing these services utilize radio communications not only in performing routine functions but also in coordinating with local officials and other entities in maintaining or restoring these critical services.[16]

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[15] Notice, ¶ 25.

[16] Id.

Thus the Commission acknowledged the crucial nature of railroads' uses of wireless communications. Despite this recognition by the Commission, however, the PSWAC Final Report fails to accommodate the unique and critical needs of railroad spectrum use.

The PSWAC Final Report contains a recommendation of the Transition Subcommittee for three categories of service pools in the event the existing service pools are consolidated.[17] The three categories are (1) Public Safety, (2) Public Service, and (3) Business/Commercial. The Public Safety frequencies would continue to be identified by their present service pool groupings. Railroad frequencies would be in the second category and would be shared within that category by entities such as public utilities, petroleum companies and pipelines. The Transition Committee ranked these three categories according to the relative criticality of the services they support,[18] and the Final Report recommends (as did the Transition Subcommittee) that interservice sharing should be authorized only from higher ranked to lower ranked categories.[19] For example, a Public Safety category user would be allowed to use the frequencies of either the Public Service category or the Business/Commercial category but a Public Service category user would not be able to use the frequencies of the higher-ranked Public Safety category.

AAR opposes this recommendation to the extent that it is intended to apply to frequencies in the Railroad Radio Service. At present, frequencies in the Railroad Radio

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[17] PSWAC Final Report, ¶ 4.5.5.

[18] Final Report of the Transition Subcommittee, July 5, 1996, ¶¶ 4.4.9-4.4.17.

[19] PSWAC Final Report, ¶ 4.5.5.

Service are shared by and among eligible railroads; they are also shared with non-railroad users pursuant to the inter-service sharing rules of the FCC.[20] Importantly, sharing with non-railroad users under the inter-service sharing rules occurs only after coordination with and consent of the railroad industry's frequency coordinator.[21] Because of nationwide interoperability requirements (e.g., radios on locomotives of one railroad must be able to communicate with dispatchers on track owned and operated by another railroad), railroads are required to work cooperatively with each other in the mobile radio environment. In other words, sharing among like users is successful because operational needs and requirements are identical. If one railroad interferes with another's communications, the problem can be immediately addressed and resolved. This is not the case, however, when dissimilar users share the same channels. An electric utility crew (Category 2) or a police department (Category 1) using a railroad channel and causing interference that jeopardizes train movements could be difficult to trace, and the interfering user may not be willing to cease transmissions immediately. Given the heavy reliance of the railroad industry on mobile radio communications for real time control of train movements, the risk of interference, blocked communication and increased congestion resulting from use by non-railroad entities (with the attendant threat of accidents, derailments and other operational mishaps), is simply unacceptable.

In this regard, the recommendation of the Subcommittee to include railroad operations in the "Public Service" category and prioritize the three categories according

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[20] 47 C.F.R. § 90.176 (1995).

[21] Id. at (c)(1)-(4).

to "relative importance of responsibilities" is irrelevant and unworkable for purposes of railroad communications. Interference by a co-channel user to a train operation communication has the same effect whether it originates from a utility crew or a police cruiser. The result is the same: a blocked communication which could result in an accident. Accordingly, AAR restates its objection to the Transition Subcommittee recommendation and urges the Commission to exclude the Railroad Radio Service frequencies from any of the three categories proposed and maintain them instead as a separate service group.

V. CONCLUSION

While AAR commends the PSWAC for its efforts and is generally pleased with the Final Report, it urges the Commission to consider the implications of the Final Report's recommendations and to recognize that several of these recommendations would be harmful to the interests of the nation's railroads. The railroads use of mobile radio communications is unique as compared to that of any other industry group. The paramount need for reliability and safety coupled with the nationwide operation and attendant need for interoperability dictate that the railroads' communications systems be given special consideration. In the same manner that public safety agencies require reliable wireless communications to respond to the type of disaster described in the Executive Summary of the Final Report, the railroads require unencumbered access to wireless communications in order to operate safely and to respond to rail disasters.

Unfortunately, the recommendations of the PSWAC Final Report described above would make it more difficult for the railroads to maintain the extremely high level of reliability in their communications systems that they require.

Respectfully submitted,

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ATTACHMENT A

Railroad Radio is Essential to Preserve Safety Along the Railroad Right-of-Way

The simple fact that railroad operations involve movement of heavy equipment, sometimes carrying passengers and/or dangerous commodities at high speeds highlights the serious nature of railroad safety concerns. The movement of a single locomotive picking up, transporting and delivering freight to various locations along a regional or nationwide route presents potential dangers to the public, as well as railroad employees, that cannot be underestimated.

Railroad radio provides the ability immediately to communicate conditions of peril and to coordinate rescue efforts. There are several reasons why mobile radio is uniquely suited to satisfy this critical communications need:

1. The fastest and surest way to contact the locomotive engineer, the person most able to provide corrective response in most emergency situations, is via the clear channel set in the engine cab. Many accidents can be avoided by an early warning of hazardous conditions. Split second timing in such situations is essential.

2. The ubiquitous use of radio in railroad operations provides a readily available means for communicating hazardous conditions or dangerous operations.

Clear communications are essential to favorable outcomes. The critical safety applications of railroad radio systems demand instantaneous transmissions and clear channels. The risk of interference jamming or blocking an emergency transmission simply cannot be tolerated. As the following occurrences illustrate, a reliable radio communications network is vital to safety:

1) In August 1994 an alert signal supervisor discovered bolts missing from the railroad track. Because of the missing bolts the track was more than an inch out of alignment, a condition that could have caused a derailment. The signal supervisor radioed the train dispatcher who was able to relay a stop train order to an approaching train, thus averting a derailment.

2) In October 1995, a tragedy which received national press attention occurred when sabotage along a railroad track in Arizona caused an Amtrak passenger train to derail in a remote desert area, killing one person and injuring many others. The train engineman radioed an emergency call of the derailment to the dispatcher. The dispatcher had no knowledge of the derailment until the emergency call was received. This immediate relay of information allowed for rescue teams to arrive quickly on the scene of the derailment and to assist the injured.

3) In October 1995, a track maintenance foreman working in Phoenix, Arizona discovered that vandals had removed spikes from the rails. The foreman immediately radioed the yardmaster who was in turn able to relay via radio a stop order to an approaching train, thus narrowly preventing a derailment.

4) During the floods of 1993 in Missouri an eastbound Santa Fe train was warned on the radio that the levee at Orrick had broken. The train was right in the path of the fast approaching wall of water. Coordinating via radio, the dispatcher and the crew were able to move the train out of the path of the oncoming water. Because of this warning the train had time to reach higher ground before the released water hit the railroad right-of-way.

5) On January 11, 1995 a construction crew working on track signals along the Conrail right of way observed a westbound train approaching and noticed one of the train cars was making abnormal vertical and lateral movements. A member of the construction team immediately radioed the engineer that there was a broken wheel on the north side of the train. The engineer stopped the train and with the help of the construction crew was able to identify the defective car and set it out. Upon examination, it turned out that eight to ten inches of the wheel tread was missing. The train was stopped just ten miles short of the Portage Bridge, a 200 foot high structure spanning the Genessee Gorge. If the train car had gone off the tracks over the bridge, the result would have been catastrophic.

6) On October 18, 1995 in Chatham, New York a signal crew member was on duty watching a freight train pass by. He observed that six of the wheels on one of the freight cars were sliding rather than rolling. The crew member quickly radioed the train crew from his portable radio and advised them of the potentially dangerous condition. The engineer immediately stopped the train and upon inspection determined the cause of the problem to be the failure of the brakes to release. The damaged freight car was removed from service and the train continued on in safe condition.

7) In 1983, a signal supervisor, waiting for a freight train to pass by, noticed that the wheel structure of one of the freight cars was out of alignment with and detached from the freight car frame. The signal supervisor radioed the train crew which was able to stop the train, thereby avoiding a collision with trains on an adjacent track.

8) On August 22, 1995, a Conrail freight crew operating in the vicinity of Frankford junction noticed a truck on the railroad track. The crew's prompt radio transmission of this information enabled an approaching Amtrak passenger train to stop short of striking the truck.

9) In Heavener, Oklahoma, a signal inspector performing his routine visual inspection of a passing train observed 1/2 of a wheel missing from one of the freight cars. The inspector immediately radioed a mayday warning to the train crew and was able to have the train stopped before it derailed. Without the ability to transmit this critical information instantaneously, the train would have derailed.

10) A deadly head-on collision between two Santa Fe trains occurred at a railroad junction. As the collision happened an Amtrak passenger train was approaching the junction. The crew members of one of the Santa Fe trains that were involved in the collision were able to radio the approaching Amtrak train and notify it of the accident ahead, saving it from colliding with the wreckage of the two Santa Fe trains.

11) On January 18, 1995 a member of a train repair crew noticed blue smoke coming from the fourth car of a passing westbound train. The repairman immediately radioed this information to the train crew which stopped the train. Upon investigation, it turned out that an axle which held the train car to the wheel structure had seized up. This condition could have resulted in a derailment if it had gone undetected.

12) In October 1995, in Del Rio, Texas, a trainman used the radio for an emergency call in to the dispatcher to request emergency medical help for a pedestrian truck by a passing train. The dispatcher was able to contact the local authorities for medical assistance.

13) In June 1995, a bridge operator in Philadelphia became seriously ill while at work. Conrail police dispatched to the scene used their radios to coordinate emergency medical assistance. Time was critical because of the bridge operators' deteriorating condition. The ability to communicate via radio with the train dispatcher and the crew was essential to the rescue effort. The employee survived the incident.

14) In 1984 in Texarkana, Arizona, a track inspector fell out of his inspection vehicle and onto the railbed. The inspector was so badly injured by the fall that he could not move. He was able, however, to push his microphone button and make tapping noises. The dispatcher, after listening to the tapping noise transmission for a period of time, discerned that the inspector might have been in trouble. A person was sent to inspector's last known location and found him bleeding badly and unable to move or talk. This rescue effort saved the inspector's life.

15) A train crew was in a locomotive pushing a work train along the track when the rear brakeman who was acting as the "eyes" of the crew slipped and fell

onto the tracks. The crew used the radio to call an ambulance and to relay the exact location so that paramedics could get in and transport the injured worker to the hospital. A considerable amount of time would have been lost with potentially tragic consequences if the crew had had to go to the road and find a telephone.

16) In March 1995, a train conductor noticed a trespasser lying on the railroad tracks leading into the rail yard. The conductor quickly alerted the yard dispatcher who relayed this information to an oncoming train which was able to stop in time. Without the ability to communicate via radio this man's life would have been lost.

17) In March 1991, a Conrail police officer observed a fire on a propane car in a passing train. The officer was able to contact the engineer by radio, have the train stopped and call for further assistance. With the help of the officer the crew fought the fire with fire extinguishers until the fire department arrived.

18) In March 1984, a railroad company police officer observed a broken rail that left a large gap in the tracks. He immediately communicated this information by radio to the dispatcher who was able to stop an approaching train, thus preventing a major derailment.

19) In the early morning hours of September 26, 1995, St. John Parrish police in Garyville, Louisiana observed that the flashing lights placed at the intersection of a local highway rail grade crossing were not functioning. The police notified the railroad dispatcher who was able to radio an approaching train and apprise it of the situation. The train was able to stop in time, thus avoiding a collision with early morning commuters.

20) In July 1995, Conrail police responding to a report of juveniles swimming near a railroad bridge noted two youngsters in the water struggling against a strong current. The officers were able to coordinate a successful rescue effort via the radio and the two youngsters were saved.

21) In July 1995, a Conrail police officer observed a trailer hanging over the side a flatcar on a passing train. The officer was able to contact the train engineer by radio in time to have the train stopped before reaching a tunnel. But for the ability to communicate this information quickly by radio, the trailer would have struck the wall of the tunnel upon entry causing a major derailment.

22) In October 1992 a turbocharger used to increase engine power exploded on a Union Pacific train headed from Stockton to Portola, California. The crew immediately radioed the dispatcher to alert the fire department. This quick action helped prevent what could have been a major forest fire.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on this 21st day of October, 1996, caused copies of the foregoing "Comments" to be served by first class mail, postage prepaid to the following:

Chairman Reed E. Hundt
Federal Communications Commission
1919 M Street, NW -- Room 814
Washington, D.C. 20554

Commissioner James H. Quello
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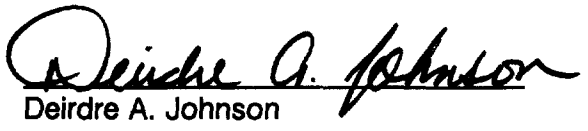

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